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HOMEMAKERS' CHAT Thursday, February 2, 1939.

(FOR BROADCAST USE ONLY)

Subject: "SAFE MILK FOR BABIES". Information from the Bureau of Dairy Industry, U.S. Department of Agriculture. Publication available, Leaflet 177-L, The Pasteurization of Milk.

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Today brings a brand-new publication from the U. S. Department of Agriculture- one which many of the young mothers in this radio audience should find useful, as well as housewives generally- in fact, anybody who is interested in having safe milk in the house.

The title of this leaflet, which is by C. J. Babcock, market milk specialist, is "The Pasteurization of Milk", and you can get a copy by writing to the U.S. Department of Agriculture, asking for Leaflet 177-L.

This little leaflet sums up the reasons why milk is safer when pasteurized, the answers to those who object to pasteurization, and the way to pasteurize milk at home if you live in a district where the market milk is sold raw, or use the milk from your own cow. Let me pick out some of these points from the leaflet for you.

First, the value and necessity for pasteurization. "The value of pasteurization is greatest when applied to the general milk supply," says Mr. Babcock. He explains that numerous outbreaks of diseases in the United States have been traced to raw milk. Some of these are typhoid and paratyphoid fever, diphtheria, septic sore throat, scarlet fever, dysentery, and gastroenteritis. The death point of the dangerous bacteria ordinarily found in milk is at a relatively low temperature. Where epidemics have been due to milk, efficient pasteurization controlled the spread of the epidemic through the agency of milk.

Furthermore, certain diseases of the cow may be transmitted through the milk to human beings, notably tuberculosis and undulant fever. A large proportion of the epidemics of milk-borne disease occur outside of the large cities, and have had their source on farms, so it is evident that pasteurization is as necessary in the country as in the city.

Here's another point: The vast number of people engaged in the production and handling of a city's milk supply makes it physically impossible for health authorities to be sure that some of the milk at some time will not come in contact with a so-called "carrier", that is, a person who unknowingly harbors organisms of a communicable disease. It is also impossible to be sure that all dairy farms are free from a polluted water supply and other sources of contamination, or that the milk from a diseased cow will not inadvertently enter milk supply. Because of such uncertainties, a city that permits the general use of raw milk cannot consider itself free from the danger of milk-borne diseases.

At present more than 80 percent of the milk supply of cities having a population above 75,000 is pasteurized. As the relative size of the city increases, the percentage of the milk that is pasteurized increases, and very little raw milk is sold in large cities. In the smaller towns and rural districts, however, only a small proportion of the milk is pasteurized.

You may be wondering what possible objection there can be to this safety measure. None, in the eyes of the milk specialists. And everything to commend pasteurization.

One of the early objections to pasteurized milk was that heating destroyed lactic-acid producing bacteria but not the putrefactive organisms. In other words, the milk, it was said, would not sour naturally, but would spoil unpleasantly. It is now known that pasteurized milk sours in the same way as high-grade raw milk, in a warm room, but that since some of the lactic acid-producing bacteria are destroyed during the process of pasteurization, pasteurized milk keeps better than raw milk when stored properly.

It has also been asserted than pasteurization would lead to lax methods on the farm. However, standards of sanitary quality are prescribed for raw milk that is to be pasteurized, so there is little to be feared on this point.

What about vitamins? It is frequently stated that vitamins are destroyed by pasteurization. Of the several vitamins in milk, only one, vitamin C, which prevents scurvy, is seriously impaired. Milk is ordinarily such a poor source of this vitamin that when used as the only food, as in the case of babies, it should always be supplemented by orange juice, tomato juice or some other fruit juice rich in vitamin C.

The claim that pasteurization makes milk less digestible for infants does not seem to be borne out by feeding experiments. Also, there seems to be no difference in the amount of cream rising in a bottle of milk, due to proper pasteurization. As to the possibility that pasteurization increases the cost of the milk, when this is done on a large scale the cost is only a fraction of a cent per quart. From the standpoint of safety, efficiently pasteurized milk as compared with the same milk in its raw state is easily worth a cent or two a quart more. The additional cost of pasteurized milk is cheap insurance against milk-borne diseases.

Now, how do you pasteurize milk at home? Here are the directions, for those who cannot obtain pasteurized milk: Remove the cover from one bottle, pour out a little of the milk, punch a hole in the cover, replace it, and insert a thermometer. Then set all the bottles of milk on a rack in a pail filled with cold water nearly to the top level of the milk and heat until the thermometer in the milk registers 145 degrees Fahrenheit. Remove the pail from the heat and leave the bottles in the hot water for 30 minutes, reheating if necessary to keep the milk at 145 degrees. After the 30-minute period, replace the hot water gradually with cold until the milk has cooled, perferably using ice in the last water. After cooling, keep the bottles in the coolest place available.

Simple, isn't it? And the result is- safe milk for all the family.

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